PATENT SPECIFICATION

DRAWINGS ATTACHED

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886,743

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International Classification:—B02d. B62d.

COMPLETE SPECIFICATION

Apparatus for Attachment to Roof Racks of Road Vehicles

We, S. E. D. (CIRENCESTER) LIMITED, a British Company, of Love Lane, Cirencester, Gloucestershire, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it it is to be performed, to be particularly described in and by the following statement:—

This invention relates to apparatus to be detachably fitted to roof racks of road vehicles which enables large unwieldly articles, for example boats, to be transferred to and from the roof of a vehicle with ease and safety.

According to the invention such apparatus comprises a freely rotatable transfer roller, a freely rotatable guide roller extending substantially at right angles to said transfer roller and means for detachably securing said rollers to the roof rack of a vehicle with the transfer roller extending transversely and the guide roller extending upwardly in relation to the vehicle.

One embodiment of the invention is shown in the accompanying drawings, wherein:—

Figure 1 is a perspective view of the apparatus mounted on the roof rack of a motor car, and

Figure 2 is a fragmentary perspective view, on an enlarged scale and partly in section, of one of the sets of rollers of Figure 1 and its clamping means.

As shown, the apparatus is in two identical parts, each of which includes a transfer roller 1 rotatably mounted on a tubular metal member 2 (Fig. 2) extending beyond the ends of the roller for engagement by the upper sets of jaws of a pair of clamping members 3 which also serve to limit axial movement of the roller. Secured to one end of the member 2, for example by welding, is a shorter tubular member 4 extending at right angles to the member 2 and carrying a freely rotatable guide roller 5 axially confined thereon by a split pin 6 or the like.

[*Price 4s. 6d.*]

By engaging the lower sets of jaws of the outer clamping members around a transverse member 7 of the roof rack through the intermediary of a split cylinder 8 and those of the inner clamping members around a connecting member 9 of the roof rack the two parts of the apparatus may be secured in position on the rack with the transfer rollers arranged coaxially to form in effect a single transverse roller provided at its ends with upstanding guide rollers. The gap between the inner ends of the two transfer rollers 1 is not sufficient to affect the efficient operation of the apparatus while enabling the combined axial length of the transfer rollers to be adjusted to the width of the article to be accommodated.

The apparatus of the invention is particularly advantageous when it is desired to transport a small boat by car. With the apparatus in position on the roof rack one end of the boat is lifted into contact with the transfer rollers 1 and the boat can then be pushed easily into position on the roof of the car by one person.

In a modification (not shown) the outer of each pair of clamping members has its upper set of jaws at a greater height than the corresponding jaws on the inner clamping members. The consequent upward inclination of the transfer rollers from the centre outwards provides central clearance for the accommodation of projecting portions, such as the centre parts of convex decks of boats, without their being scratched by the inner ends of the rollers and their clamping means.

To prevent scratching of paintwork or other surfaces of a boat or other article it is preferred to employ rollers of synthetic plastic or other non-abrasive material which will operate as pads.

The apparatus is preferably attached to the rear end only a roof rack but an additional

device may also be attached to the front end.

WHAT WE CLAIM IS:—

1. Apparatus for facilitating the transfer of objects to and from the roof of a vehicle, comprising a freely rotatable transfer roller, a freely rotatable guide roller extending substantially at right angles to said transfer roller and means for detachably securing said rollers to the roof rack of a vehicle with the transfer roller extending transversely and the guide roller extending upwardly in relation to the vehicle.

2. Apparatus according to Claim 1, wherein the transfer roller is rotatably mounted upon a tubular member the ends of which extend beyond the ends of the transfer roller for engagement by said securing means.

3. Apparatus according to Claim 2, wherein said securing means consist of clamping members each of which has two sets of jaws one for engaging an end of said tubular member and the other for engaging a transverse member of a vehicle roof rack.

4. Apparatus according to Claim 2 or 3, wherein said guide roller is rotatably mounted n a second tubular member, one end of which extends beyond one end of said guide roller and is secured to one end of said first tubular member.

5. Apparatus according to Claim 4, wherein the other end of said second tubular member extends beyond the other end of said guide roller and is provided with means for limiting axial movement of said roller.

6. Apparatus according to Claim 5, wherein said limiting means is a split pin passing transversely through said second tubular member.

7. Apparatus according to any one of Claims 2 to 6, wherein said tubular members are made f metal.

8. Apparatus according to any preceding claim, wherein said rollers are made of synthetic or other non-abrasive material.

9. A vehicle roof rack provided with apparatus as claimed in any preceding claim.

10. A vehicle roof rack according to Claim 9, wherein two transfer rollers are arranged co-axially with guide rollers situated at the ends thereof remote from one another, and said securing means permits axial adjustment of said rollers towards and away from one another to vary the width of the apparatus to suit the size of the object to be carried.

11. A vehicle roof rack according to Claim 10, wherein the remote ends of said transfer rollers are raised relatively to the adjacent ends thereof.

12. A vehicle roof rack according to any one of Claims 9 to 11, wherein said apparatus is fitted to the rear end thereof.

13. Apparatus for facilitating the transfer of objects to and from the roof of a vehicle, substantially as hereinbefore described and as shown in Fig. 2 of the accompanying drawings.

14. A vehicle roof rack provided with apparatus for facilitating the transfer of objects thereto and therefrom, substantially as hereinbefore described and as shown in the accompanying drawings.

HERON ROGERS & CO.,
Agents for Applicants,
Bridge House, 181, Queen Victoria Street,
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PROVISIONAL SPECIFICATION

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This invention relates to roof racks for road vehicles and to a device to be detachably fitted thereon which enables large unwieldly articles, for example boats, to be transferred to and from the roof of a vehicle with ease and safety.

According to the invention such a device includes one or more freely rotatable transfer rollers, freely rotatable guide rollers extending substantially at right angles to the transfer roller or rollers and means for detachably securing the device to the roof rack of a car or other road vehicle.

In a preferred construction the device is in two identical parts each of which includes a transfer roller rotatably mounted on a tubular metal member extending beyond the ends of the roller for engagement by the upper sets of jaws of a pair of clamping members which also serve to limit axial movement of the roller. Secured to one end of the tubular member, for example, by welding, is a shorter tubular member extending at right angles to the first member and carrying a freely rotatable guide roller axially confined thereon by a split pin or the like.

By engaging the lower sets of jaws of the clamping members around a transverse member of the roof rack the two parts of the device may be secured in position on the rack with the transfer rollers arranged co-axially to form in effect a single transverse roller provided at its ends with upstanding guide rollers. The gap between the inner ends of the two transfer rollers is not sufficient to effect the efficient operation of the device while enabling the combined axial length of the transfer rollers to be adjusted to the width of the article to be accommodated.

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886,743 COMPLETE SPECIFICATION
1 SHEET

This drawing is a reproduction of the Original on a reduced scale.

FIG.2

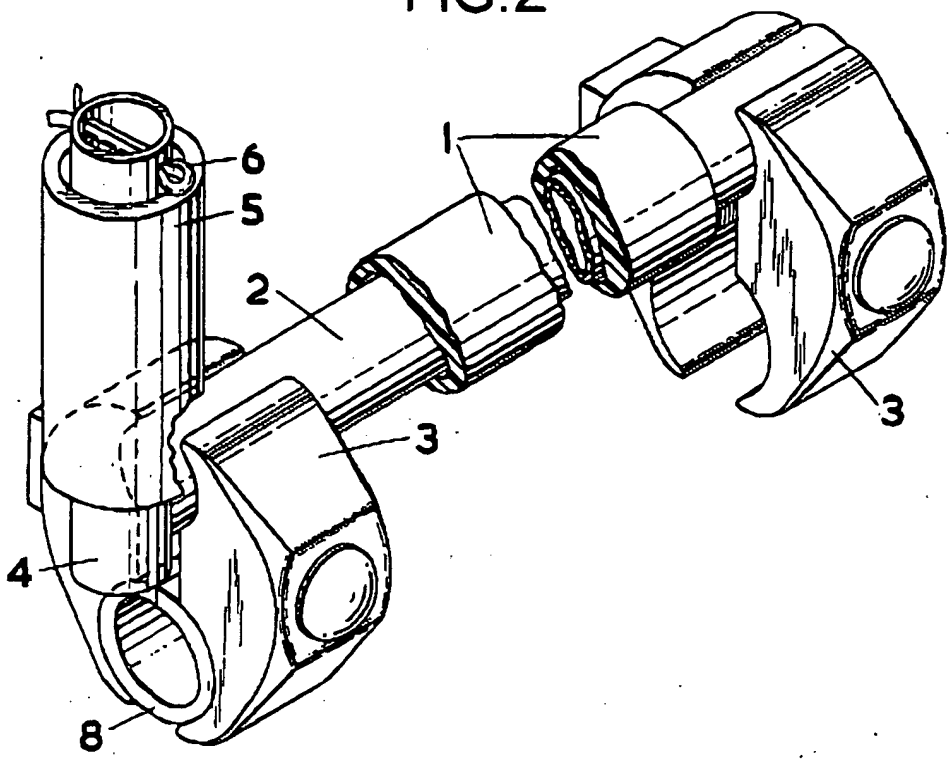

FIG.1